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ATENT APPLICATION
Do. No. 9898-189

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

re application of: Yoo-Sang Hwang and Su-Jin AHN

Serial No. 09/955,388

Examiner: Mai, Anh D

Filed: September 17, 2001

Group Art Unit: 2814

For: SEMICONDUCTOR DEVICE HAVING CONTACT PLUG AND METHOD
FOR MANUFACTURING THE SAME

BOX NON FEE AMENDMENT
Assistant Commissioner for Patents,
Washington, D.C. 20231

Responsive to the Office Action dated July 2, 2002, enclosed is an amendment in the above-identified application.

The fee has been calculated as shown below.

CLAIMS AS AMENDED					
For:	Number After Amendment	Previous Number	Extra	Rate	Additional Fee
Total Claims	10	12	0	x \$18 =	\$0
Independent Claims	1	2	0	x \$84 =	\$0
TOTAL ADDITIONAL FEE FOR THIS AMENDMENT					\$0

*greater of twenty (20) or number for which fee has been paid

**greater of three (3) or number for which fee has been paid

Respectfully submitted,

MARGER JOHNSON & McCOLLOM, P.C.



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PATENT TRADEMARK OFFICE

Alan T. McCollom
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RESPONSE TO OFFICE ACTION

Responsive to the Office Action, dated July 2, 2002, please amend the application as follows.

IN THE CLAIMS

5. (Once amended) A method for manufacturing a semiconductor device comprising:
forming an insulating layer having a contact hole therethrough on a semiconductor substrate;
forming a diffusion barrier layer on a surface of the insulating layer and on surfaces within the contact hole; and
forming a contact plug in the contact hole by forming a first sub-plug that fills a lower portion of the contact hole and forming a second sub-plug that fills an upper portion of the contact hole on the first sub-plug,
wherein the first sub-plug fills a lower portion of the contact hole to a level substantially below a top surface of the insulating layer.

6. The method for manufacturing a semiconductor device of claim 5, wherein forming a first sub-plug comprises forming a first metal layer on the insulating layer having the contact hole therethrough and etching back the first metal layer to a predetermined depth to expose a void in the first metal layer, if any.

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